Waste Management Project

D. E. McKenney, Acting Project Director/ (509) 373-0402

Accelerated Processing Lines (APL's) at Hanford

The mobile assay trailer (above) and the office portion of the assay unit. The Real-Time Radiography unit (below) is fed from the back. A trolley comes out the back and four drums are placed on the trolley (not shown).

Introduction

The Waste Management Project consists of Project Baseline Summary (PBS) RL-CP02, *200 Area Materials and Waste Management*, except for the Environmental Restoration Disposal Facility (ERDF), which is work scope managed by another Site contractor.

NOTE: Unless otherwise noted, all information contained herein is as of the end of June 2003.

Notable Accomplishments

Transuranic (TRU) Waste Shipments to the Waste Isolation Pilot Plant (WIPP): Shipped 128 cubic meters (m^3) versus 48 m^3 planned through the third quarter of FY 2003, including a ramp-up to seven shipments in both May and June 2003.

TRU Waste Retrieval: RL issued the Low Level Burial Ground (LLBG) Safety Evaluation Report (SER). The SER includes TRU Retrieval activities. Prior to the TRU Retrieval Readiness Assessment, FH will perform an Implementation Validation Review (IVR) for LLBG readiness verification. The Drum Venting System contractor's design was approved. The contractor completed modifications to the custom-built trailer that the drum venting equipment will be located in. Contracts were awarded for a portable drum venting system, mobile office facility, and infrastructure upgrades.

Mixed Low Level Waste (MLLW) Treatment: The Engineering Evaluation/Cost Analysis (EE/CA) was approved for disposal of 183-H Basin waste in the ERDF. This waste represents 60% (3,730 m^3 or 12,300 containers) of currently stored MLLW at the Central Waste Complex (CWC). Initiated waste shipments to ERDF. Completed six shipments totaling 76 m^3 of MLLW debris and radioactive lead solids to ATG, Inc. (ATG). Received seven MLLW shipments totaling 52 m^3 (60 m^3 pre-treatment volume) of macroencapsulated debris and radioactive lead solids from ATG.

Liquid Waste Processing: Following a three-week maintenance outage, the 200 Area Effluent Treatment Facility treated 1.2 million gallons of Operable Unit UP-1 groundwater and ERDF leachate. The 300 Area Treated Effluent Disposal Facility treated and disposed of 3.7 million gallons of industrial wastewater, supporting cleanout of several 300 Area facilities.

FY 2003 Schedule/Cost Performance ($000)

		Budgeted Cost of Work Scheduled	Budgeted Cost of Work Performed	Actual Cost of Work Performed	Schedule Variance $	Schedule Variance %	Cost Variance $	Cost Variance %	Budget At Completion
RL-CP02	**200 Area Materials & Waste Mgm't**	**84,744**	**81,240**	**77,308**	**-3,504**	**-4%**	**3,932**	**5%**	**118,910**

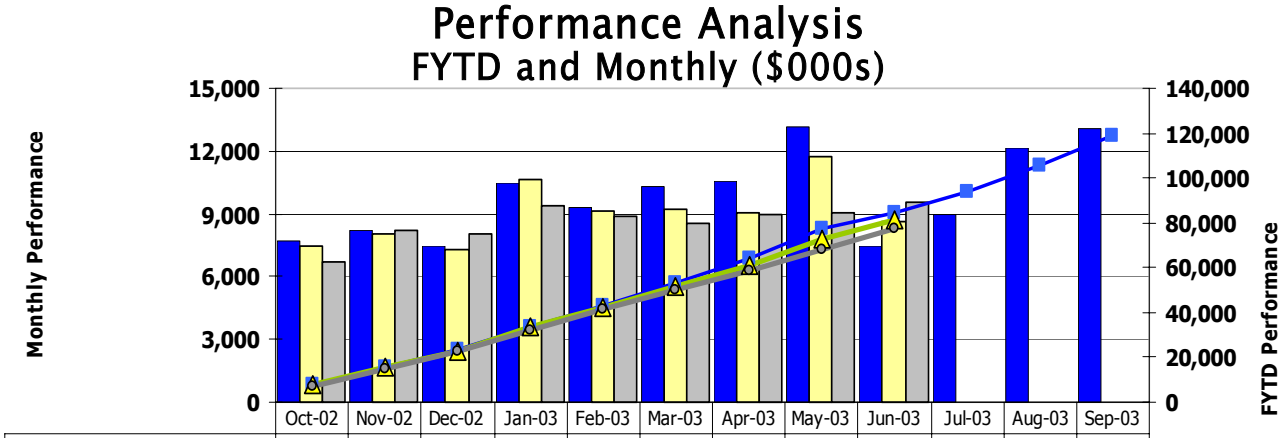
Schedule Performance: The $3,504K unfavorable schedule variance is primarily due to delays in TRU retrieval training, procedural and readiness implementation. Contract staff has been hired to recover the schedule for readiness documentation and procedure updates. TRU Retrieval readiness assessment demonstration is tentatively scheduled for mid-September. The receipt of the sludge from K Basin is behind due to delays in preparation of the readiness assessment. T Plant has received RL authorization to proceed with startup for receipt and storage of K Basin Sludge. The 183-H disposal to ERDF is behind schedule due to the EE/CA decision. Shipping started in July and is expected to be back on schedule in

FY 2003 Schedule/Cost Performance, continued

early September. The shallow trench development has been deferred to FY 2004. The CWC fire deficiency upgrades are behind due to finalization of work scope. The upgrades are scheduled to start in August and will finish early next year.

Cost Performance: The $3,932K favorable cost variance is primarily the result of the FY 2002 and FY 2003 fee reductions. Cost efficiencies have been achieved in the 200 Area Liquid Effluents and Program Management. The favorable variance will be utilized to offset over-runs in the sludge receipt readiness and other FH projects.

The favorable variance is offset by unfavorable variances in the Solid Waste Pool, where waste volumes have been lower than planned for both on-site and off-site. This resulted in revenues being less than planned. Volumes are expected to pick up in the last two months of the year and changes to the rates will be implemented in July to offset the variance. Sludge receipt costs have been higher than planned because of the cost to recover from the crane incident in January and readiness assessment preparation.



	Oct-02	Nov-02	Dec-02	Jan-03	Feb-03	Mar-03	Apr-03	May-03	Jun-03	Jul-03	Aug-03	Sep-03
Other WBS Monthly BCWS	7,707	8,236	7,499	10,466	9,323	10,290	10,581	13,155	7,487	8,934	12,128	13,103
Other WBS Monthly BCWP	7,460	8,081	7,271	10,644	9,121	9,242	9,047	11,721	8,653			
Other WBS Monthly ACWP	6,704	8,193	8,062	9,405	8,858	8,510	8,970	9,073	9,534			
Other WBS FYTD BCWS	7,707	15,943	23,442	33,908	43,231	53,521	64,102	77,257	84,744	93,678	105,806	118,910
Other WBS FYTD BCWP	7,460	15,541	22,812	33,456	42,577	51,819	60,866	72,587	81,240			
Other WBS FYTD ACWP	6,704	14,896	22,958	32,363	41,221	49,731	58,701	67,774	77,308			

MILESTONE ACHIEVEMENT

Number	Milestone Title	Type	Due Date	Forecast Date	Status / Comment
M-91-20	T Plant ready to rec. canister of K Basin floor pit sludge	Tri-Party Agreement (TPA) Enforceable	12-31-02	06-24-03	Complete. Letter from RL granting approval received 06-24-03
M-91-22	T Plant ready to rec. Canister & fuel wash sludge from K Basin	TPA Enforceable	02-29-04	02-29-04	Letter to RL drafted recommending milestone deletion
M-26-07A	Submit Evaluation of Status of Development of Tritium Treatment Technology	TPA Enforceable	03-31-04	03-31-04	On schedule
M-91-07	Complete W-113 for Post 1970 CH TRU / TRUM Retrieval	TPA Enforceable	09-30-04	TBD	TPA renegotiation ongoing
M-91-12A	Treat 240 Cubic Meters by 12/31/2004	TPA Enforceable	12-31-04	TBD	Letter of completion submitted to RL (treatment equivalency)

FY 2003 FH FUNDS VS. FORECAST ($000)

	Expected Funds	Spend Forecast	Variance
RL-CP02 Waste Management Project Completion - Operating	$ 111,450	$ 113,250	$ (1,800)

ISSUES

Receipt of Administrative Order on Washington Hazardous Waste Management Act and Dangerous Waste Regulation: Significant acceleration of retrieval, designation, treatment and certification of MLLW and TRU waste is required. The stay was extended through August 5, 2003, for section II.C.ii. An extension to section II.A.ii has been granted for the delivery of the Sampling and Analysis Plan of burial ground 218-W-4C from July 31, 2003, until August 12, 2003. Until negotiations are concluded, the terms of the Order remain in effect and are difficult, if not impossible, to meet based on current and planned waste retrieval, designation, treatment, and certification capabilities for MLLW and TRU waste. Significant impacts include requiring additional funding above the current baseline to execute the new work scope and the risk of being subject to enforcement by Ecology if the terms are not met.

ISSUES, CONTINUED

TRU Program Acceleration: Increase production rates for TRU waste certification and shipment to the WIPP.

- Add bargaining unit resources at the Waste Receiving and Processing (WRAP) Facility to allow parallel TRU characterization efforts. Twenty-two of the originally planned 40 bargaining unit resources have been added to date. Recent efficiency improvements at WRAP have reduced the need for the entire complement of resources. Due to budget constraints, the addition of the remaining personnel is being put on hold, subject to further evaluation next month.
- Augment Headspace Gas analytical capability through use of the Idaho National Environmental and Engineering Laboratory (INEEL). Procedure changes and implementation are expected to be in place by the end of July 2003.
- Certify the Sand Slag & Crucible (SS&C) waste stream and start shipments to WIPP in May 2003. The Waste Stream Profile Form was approved on schedule by the Carlsbad Area Field Office and the first SS&C shipment was completed on May 27, 2003. Ten SS&C shipments have now been completed, which finishes that shipping campaign (except for a partial remaining shipment that will be scheduled at a later date).
- Accelerated Process Line implementation: Both the non-destructive assay (NDA) unit and the non-destructive evaluation (NDE) unit have arrived on site. Both units are being temporarily located outside the 2403 building at CWC until the modifications at 2404-WC are complete later this summer. Calibration of the NDA unit began this week, and the NDE unit was powered up and successfully passed its leak check. RL has indicated that we can process drums through these units as part of their certification effort under the existing National Environmental Policy Act (NEPA) Categorical Exclusion; however, there is no NEPA coverage for continued operations. The delay in the Solid Waste Environmental Impact Statement will have a significant impact.
- Modify the 2404-WC facility by adding a Heating, Ventilation and Air Conditioning system for storage of drums (at temperature) prior to head-gas sampling. Construction is progressing well and is scheduled for completion by the end of August 2003.
- Implement solids sampling at the Plutonium Finishing Plant (PFP). Procedures and training are in place and were evaluated as part of the June 2003 audit. This effort is necessary to complete the characterization of existing (Hanford ash) and future PFP-generated S3000 Pipe Over-pack Containers. Preliminary arrangements with INEEL have been made for receipt and analysis of *Solids* sampling. FH intends to send Hanford and Rocky Flats Ash samples to INEEL in August.

Buried TRU Drum Retrieval: Initiate TRU drum retrieval by October 2003.
The SER was transmitted on June 24, 2003. RL stated in the transmittal letter that a Readiness Assessment (RA) will not be adequate. FH must respond within 30 days as to which of two options (either an IVR on Low-Level Burial Grounds Master Documented Safety Assessment controls followed by TRU Retrieval RA, or an Operational Readiness Review) will be used. The FH response letter stating an IVR will be used is in the approval cycle. The IVR is scheduled for early September.

- Approval to allocate personnel/resources to project: The staffing plan is approved and hiring is proceeding.
- Mobilize drum venting equipment/integrated demonstration by August 2003.
- Complete regulator negotiations and implement the outcome of the TPA M-91 negotiations.
- Start RA contractor review by September 2003.
- Final RL RA approval/startup initiated by October 2003.